

Listing of Claims

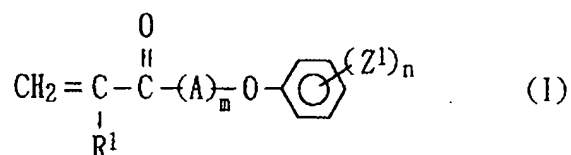
This listing of claims replaces all prior versions of claims in the application.

1 (previously presented): A photosensitive resin composition comprising

(A) a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent,

(B) a 2,4,5-triarylimidazole dimer as a photo-polymerization initiator, and

(C) a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond which comprises a compound represented by the general formula (I)

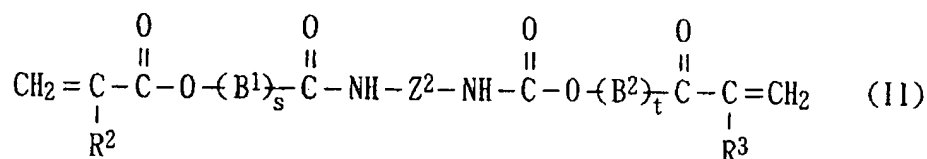


wherein R¹ is a hydrogen atom or a methyl group, A is an alkylenoxy group of 2 to 6 carbon atoms, Z¹ is a halogen atom, an alkyl group of 1 to 20 carbon atoms, a cycloalkyl group of 3 to 10 carbon atoms, an aryl group of 6 to 14 carbon atoms, an amino group, an alkylamino group of 1 to 10 carbon atoms, a dialkylamino group of 2 to 20 carbon atoms, a nitro group, a cyano group, a mercapto group, an alkylmercapto group of 1 to 10 carbon atoms, an allyl group, a hydroxyalkyl group of 1 to 20 carbon atoms, a carboxyalkyl group wherein the alkyl group has 1 to 10 carbon atoms, an acyl group having an alkyl group of 1 to 10 carbon atoms, an alkoxy group of 1 to 20 carbon atoms or a group containing an heterocyclic group, m is an integer of 6 to 20, and n is an integer of 0 to 5.

2 (canceled).

3 (original): The photosensitive resin composition of claim 1, wherein the component (C) is a photo-polymerizable compound having in its molecule at least one polymerizable

ethylenically unsaturated bond, which comprises a compound represented by the general formula (I) and a compound represented by the general formula (II)



wherein R² and R³ each independently are a hydrogen atom or an alkyl group of 1 to 6 carbon atoms, B¹ and B² each independently are as defined above for A in the general formula (I), Z² is a divalent hydrocarbon group of 1 to 16 carbon atoms, and s and t each independently are an integer of 1 to 28.

4 (original): The photosensitive resin composition of claim 1, wherein the component (A) is a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent and comprises copolymerized constituents consisting of 15 to 35 % by weight of methacrylic acid, 10 to 35 % by weight of styrene or a styrene derivative and 30 to 75 % by weight of a monomer represented by the general formula (III)

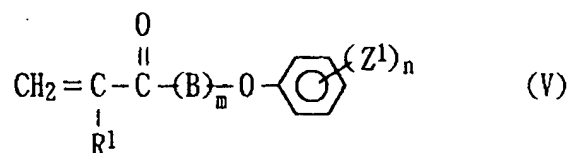


wherein R⁵ is a hydrogen atom or a methyl group, and R⁶ is an alkyl group of 1 to 12 carbon atoms.

5 (original): The photosensitive resin composition of claim 1, wherein the component (A) is a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as copolymerized constituent and has a weight average molecular weight of 30,000 to 80,000.

6 (original): The photosensitive resin composition of claim 1, which comprises 40 to 70 parts by weight of the component (A), 0.1 to 10 parts by weight of the component (B) and 30 to 60 parts by weight of the component (C) relative to 100 parts by weight of a sum total of the component (A) and the component (C).

7 (previously presented): A photosensitive resin composition comprising
(A) a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent;
(B) a 2,4,5-triarylimidazole dimer as a photo-polymerization initiator, and
(C') a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond which comprises a compound represented by the general formula (V)



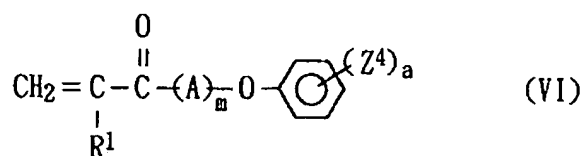
wherein R^1 is a hydrogen atom or a methyl group, B is an ethylenoxy group, Z^1 is a halogen atom, an alkyl group of 1 to 20 carbon atoms, a cycloalkyl group of 3 to 10 carbon atoms, an aryl group of 6 to 14 carbon atoms, an amino group, an alkylamino group of 1 to 10 carbon atoms, a dialkylamino group of 2 to 20 carbon atoms, a nitro group, a cyano group, a mercapto group, an alkylmercapto group of 1 to 10 carbon atoms, an allyl group, a hydroxyalkyl group of 1 to 20 carbon atoms, a carboxyalkyl group wherein the alkyl group has 1 to 10 carbon atoms, an acyl group having an alkyl group of 1 to 10 carbon atoms, an alkoxy group of 1 to 20 carbon atoms or a group containing an heterocyclic group, at least one Z^1 is an alkyl group of 1 to 20 carbon atoms, m is an integer of 6 to 18, and n is an integer of 1 to 5.

8 (previously presented): A photosensitive resin composition comprising

(A) a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent,

(B) a 2,4,5-triarylimidazole dimer as a photo-polymerization initiator, and

(C'') a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond which comprises a compound represented by the general formula (VI)



wherein R¹ is a hydrogen atom or a methyl group, A is an alkylenoxy group of 2 to 6 carbon atoms, Z⁴ is an alkyl group of 1 to 20 carbon atoms, m is an integer of 6 to 18, and a is an integer of 1 to 5.

9 (original): A photosensitive element produced by applying the photosensitive resin composition of claim 1, 7 or 8 to a support and then drying the photosensitive resin composition to form a photosensitive resin composition layer.

10 (original): The photosensitive element of claim 9, wherein a protective film is applied to the photosensitive resin composition layer.

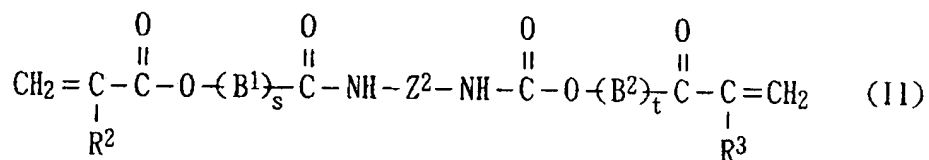
11 (original): A process for producing a resist pattern comprising laminating the photosensitive element of claim 9 on a substrate to be processed for forming a circuit with the photosensitive resin composition layer placed in contact with the substrate, exposing the photosensitive resin composition layer by irradiating it with an active ray in a pattern of an image to radiation-cure exposed areas of the photosensitive resin composition layer, and then developing by removing unexposed areas of the photosensitive resin composition layer.

12 (original): The process of claim 11, wherein a protective film is applied to the photosensitive resin composition layer, and wherein the photosensitive element is laminated on the substrate while the protective film is being peeled off from the photosensitive resin composition layer.

13 (original): A process for producing a printed wiring board, comprising etching or plating the substrate bearing the resist pattern produced by the process of claim 11.

14 (canceled).

15 (previously presented): The photosensitive resin composition of claim 7, wherein the component (C') is a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond, which comprises a compound represented by the general formula (V) and a compound represented by the general formula (II)



wherein R² and R³ each independently are a hydrogen atom or an alkyl group of 1 to 6 carbon atoms, B¹ and B² each independently are an alkylenoxy group of 2 to 6 carbon atoms, Z² is a divalent hydrocarbon group of 1 to 16 carbon atoms, and s and t each independently are an integer of 1 to 28.

16 (previously presented): The photosensitive resin composition of claim 7, wherein the component (A) is a carboxyl group-containing binder polymer which contains a styrene derivative as a copolymerized constituent and comprises copolymerized constituents consisting of 15 to 35 % by weight of methacrylic acid, 10 to 35 % by weight of styrene or a styrene derivative and 30 to 75 % by weight of a monomer represented by the general formula (III)



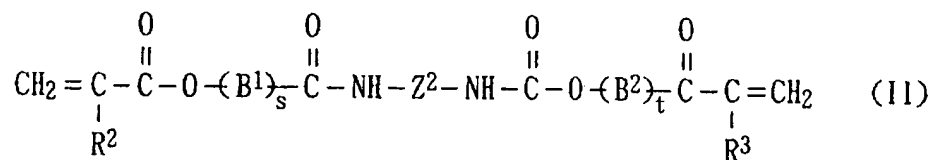
wherein R⁵ is a hydrogen atom or a methyl group, and R⁶ is an alkyl group of 1 to 12 carbon atoms.

17 (previously presented): The photosensitive resin composition of claim 7, wherein the component (A) is a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent and has a weight average molecular weight of 30,000 to 80,000.

18 (previously presented): The photosensitive resin composition of claim 7, which comprises 40 to 70 parts by weight of the component (A), 0.1 to 10 parts by weight of the component (B) and 30 to 60 parts by weight of the component (C') relative to 100 parts by weight of a sum total of the component (A') and the component (C').

19 (canceled).

20 (original): The photosensitive resin composition of claim 8, wherein the component (C'') is a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond, which comprises a compound represented by the general formula (VI) and a compound represented by the general formula (II)



wherein R² and R³ each independently are a hydrogen atom or an alkyl group of 1 to 6 carbon atoms, B¹ and B² each independently are an alkylenoxy group of 2 to 6 carbon atoms, Z² is a divalent hydrocarbon group of 1 to 16 carbon atoms, and s and t each independently are an integer of 1 to 28.

21 (previously presented): The photosensitive resin composition of claim 8, wherein the component (A) is a carboxyl group-containing binder polymer which contains a styrene derivative as a copolymerized constituent and comprises copolymerized constituents consisting of 15 to 35 % by weight of methacrylic acid, 10 to 35 % by weight of styrene or a styrene derivative and 30 to 75 % by weight of a monomer represented by the general formula (III)



wherein R⁵ is a hydrogen atom or a methyl group, and R⁶ is an alkyl group of 1 to 12 carbon atoms.

22 (previously presented): The photosensitive resin composition of claim 8, wherein the component (A) is a carboxyl group-containing binder polymer which contains styrene or a styrene derivative as a copolymerized constituent and has a weight average molecular weight of 30,000 to 80,000.

23 (previously presented): The photosensitive resin composition of claim 8, which comprises 40 to 70 parts by weight of the component (A), 0.1 to 10 parts by weight of the

component (B) and 30 to 60 parts by weight of the component (C'') relative to 100 parts by weight of a sum total of the component (A') and the component (C'').

24 (original): The photosensitive resin composition of claim 1, which further contains 2,2-bis[4-(acryloxypolyethoxy)phenyl]propane or 2,2-bis[4-(methacryloxypolyethoxy)phenyl]propane as a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond.

25 (original): The photosensitive resin composition of claim 7, which further contains 2,2-bis[4-(acryloxypolyethoxy)phenyl]propane or 2,2-bis[4-(methacryloxypolyethoxy)phenyl]propane as a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond.

26 (original): The photosensitive resin composition of claim 8, which further contains 2,2-bis[4-(acryloxypolyethoxy)phenyl]propane or 2,2-bis [4-(methacryloxypolyethoxy)phenyl]propane as a photo-polymerizable compound having in its molecule at least one polymerizable ethylenically unsaturated bond.

27 (new): The photosensitive resin composition of claim 1, wherein said (B) a 2, 4, 5-triarylimidazole dimer as a photo-polymerization initiator, is halogenated.

28 (new): The photosensitive resin composition of claim 7, wherein said (B) a 2, 4, 5-triarylimidazole dimer as a photo-polymerization initiator, is halogenated.

29 (new): The photosensitive resin composition of claim 8, wherein said (B) a 2, 4, 5-triarylimidazole dimer as a photo-polymerization initiator, is halogenated.